Interview Summary

Applicants wish to thank Examiner Kenneth Horlick for the telephone interview held with Anton Bokal on March 15, 2007, during which agreement was reached as to the novelty of the present claims over the prior art of record.

Remarks

Claims 54-123 are pending in the application, with claims 54, 68, 78, 92 and 107 being the independent claims.

Claim Rejection Under 35 U.S.C. § 103(a)

Claims 54-111, 113-114, 116, 118-119, and 121-122 were rejected as being unpatentable over Spinella. Applicants respectfully traverse this rejection.

Establishing prima facie obviousness requires a showing that each claim element is taught or suggested by the prior art. See In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Absent a showing of such motivation and suggestion, prima facie obviousness is not established. See In re Fine, 5 USPQ2d at 1598.

The presently claimed methods include two features that are not disclosed or suggested by Spinella. First, cDNA molecules are contacted with a hapten (see step c of claims 54, 68, 78, 92, and 107). Second, a single enzyme is used to cleave the cDNA-hapten complex at a site within a primer-adapter. (see e.g., step d of claim 54).

With regard to the first feature, the Office Action acknowledges that "Spinella et al does not disclose contacting one or more of the cDNA molecules with at least one hapten to produce one or more hapten-cDNA molecule complex." In fact, Spinella discloses contacting a liganded primer (not a cDNA) with a hapten (see e.g., Figure 2). Thus, Spinella fails to disclose an entire step of the claimed methods. This failure cannot reasonably be characterized as a simple reordering of steps, as the Office Action suggests at page 3.

Turning to the second feature, Spinella discloses the use of a restriction enzyme that cleaves the cDNA outside the primer (see column 5, lines 42-45). As the Office Action points out, reference is made to the use of a second restriction enzyme that cleaves within the primer (see column 6, lines 4-7). The use of such a restriction enzyme is in the context of the method described starting at column 5, line 37. Thus, the use of a restriction enzyme that cleaves within the primer is disclosed in connection with another enzyme that cleaves outside the primer. Figure 2 of the Spinella reference clearly shows such use of two restriction enzymes: one that cleaves outside the primer (i.e., Mbo) and another one that cleaves within the primer (i.e., NotI). Spinella does not disclose or suggest the use of only a single restriction enzyme, where that enzyme cleaves within the primer.

The Spinella reference clearly does not teach or suggest each claim element of the present claims, and prima facie obviousness has not been established. Applicants therefore request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

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Claims 112, 115, 117, 120, and 123 also were rejected as being unpatentable over Spinella further in view of Ando. As indicated above, the Spinella reference does not teach or suggest two features of the present claims. The Ando reference does not cure those deficiencies. Thus, prima facie obviousness has not been established. Applicants therefore request that this rejection under 35 U.S.C. § 103(a) also be withdrawn.

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Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated,

or rendered moot. Applicants therefore respectfully request that the Examiner reconsider

and withdraw all presently outstanding rejections. Applicants believe that a full and

complete reply has been made to the outstanding Office Action and, as such, the present

application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully

requested.

Respectfully submitted,

Date: March 15, 2007

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